



Department of Geology Awards Ceremony

Friday, April 20, 2018

University of Georgia



Alumni Advisory Board Members

Mr. Frank Lieth, Chair

Director, Geological Services, US Vulcan Materials Co.

Ms. Charlotte Abrams

Nuclear Regulatory Commission

Mr. Jeff Blackmon

Project Manager, Newmont Gold

Mr. Ken Gillon

Consultant

Mr. Daven Mashburn

Senior Exploration Manager, Newmont Gold

Mr. Ed Moritz

President, Gustavson Associates

Dr. Wes Myers

Los Alamos National Laboratory

Mr. Jim Redwine

Senior Managing Scientist
Anchor QEA, LLC

Dr. James Saunders

Professor of Geology, Auburn University

Mr. Jeff Shellebarger

President, Chevron NA Exploration and Development



Undergraduate Accolades

B.S. / A.B. Recipients

Summer 2017 - Fall 2017 – Spring 2018 – Summer 2018

Anthony Arbise
Jacob Bowser
Kyle Colville
James de Lange
Patrick Doherty
Kiston Dowler
Laura Dupont
Abigail Evers
Sarah Hazard
Bear Jordan
Lillian Kalla
Sydney Lee
Jacob McCord
Jeremy Mote
Christopher Rayfield
Ciera Seabolt
Nia Watson

Senior Theses/Research

(Faculty mentor)

Laura A. Dupont* - Evaluating human-driven environmental change using a stalagmite from northwestern Madagascar: implications for research and conservation.”(Railsback).

Garrett Gardner - "Olivine composition in Marcath Flow, Lunar Crater Volcanic Field Nevada." (Roden)

Bear Jordan – “Changes in Clay Mineral Assemblages of Legacy Sediments in the Calhoun Critical Zone Observatory, SC: Evidence for Anthropogenic Landscape Change. (Schroeder)

Nia Watson – “The response of Benthic Foraminifera to Zinc Chloride at controlled temperatures of 18°C, 24°C, and 30°C.” (Goldstein)

*denotes UGA Geology Undergraduate Funding

Undergraduate Presentations at Professional Meetings (Faculty mentor)

Jacob Bowser - **Webster, C., Walker, S.E., **Teeter, W.H. and Bowser, S.S. Update on the potential effects of ocean acidification on Antarctic marine bivalves. *Geological Society of America Abstracts with Programs* 49: doi: 10.1130/abs/2017AM-308140

Tyler Cannida – “Petrography of Gneisses from the Mary Lou Quarry in Clinton, SC: Implications for Quantifying Mineral Compositions in the Critical Zone.” CURO Symposium (Schroeder)

Jared Conner – “Application of Biochar for Low-Cost Treatment of Agricultural Wastewater” CURO Symposium (Nzengung)

Laura Dupont -"Evaluating human-driven environmental change using a stalagmite from northwestern Madagascar: implications for research and conservation” CURO Symposium (Railsback)

Laura Dupont -"Evaluating human-driven environmental change using a Madagascar stalagmite” at the Summer School for Speleothem Science in Burgos, Spain, in August 2017 (Railsback)

Anthony Arbise – “Implications of Strike-Slip Faulting for Plate Tectonics on Europa” CURO Symposium (Klimczak)

Bear Jordan – “Changes in Clay Mineral Assemblages of Legacy Sediments in the Calhoun Critical Zone Observatory, SC: Evidence for Anthropogenic Landscape Change” CURO Symposium (Schroeder)

Bear Jordan, Sydney Lee – “Descriptive Mineralogy of Georgia’s Barrier Island Beaches” CURO Symposium (Walker)

Sophia Sanders – “The Fate of Degraded Biotites in the Deep Critical Zone: Implications for the K-Uplift Hypothesis” CURO Symposium (Schroeder)

Undergraduate Journal Publications

Austin, J., Perry, A., Richter, D., and Schroeder, P.A., 2018. Modification of 2:1 clay minerals in a kaolinite dominated Ultisol under changing land-use regimes. *Clay and Clay Minerals*.

*John, D., Madiros, P., Babcock-Adams, L., and Walker, S.E., 2017. Cambrian trilobites as archives for Anthropocene biomarkers and other chemical compounds. *Anthropocene* 17: 99–106

Walker, S.E., **Hancock, L.G., and Bowser, S.S., 2017. Diversity, biogeography, body size and fossil record of parasitic and suspected parasitic foraminifera: A review. *Journal of Foraminiferal Research* 47: 34–55.

Funding and Awards

Newmont Field School Scholarship

Sophia Sanders
Sydney Shatz

Cash Owens
Cason Dowdy

2018 SME Scholarship for Students Seeking Geoscience Degrees
Savannah Rathbun

Outstanding Field School Students
2018

Gian Cella
Brian Tomkins
David Richards

Outstanding Undergraduate Students 2017-2018

Laura Dupont
Anthony Arbise



Graduate Student Accolades

2017-2018 Graduate Degrees

M.S.

Abigail Knapp - Spatiotemporal Dynamics of the Hydrologic Drivers of Harmful Algal Blooms in two Piedmont Reservoirs.” (Milewski)

Cullen LaPointe - “An evolution of the effects of a rapidly changing Miocene Climate on the growth and stable isotopic ecology of the scallop: *Chesapecten nefrens*.” (Walker)

Jacob Lee – “Investigating the Mantle Source of the Lunar Crater Volcanic Field, Nevada.” (Roden)

Devon Verellen – “An Investigation of P-wave Reflectivity Beneath the Southern Appalachians Using Global Seismic Phases.” (Hawman)

Sarah Wright - The Falling-Stage Progradation of an Open-Coast Tidal Flat: UAV-Assisted Sequence Stratigraphy of the Jurassic Windy Hill Sandstone, Wyoming USA. (Holland)

Presentations at Professional Meetings

Callihan M. B., and Klimczak, C.: Growth strategies and fault rock evolution of lunar graben. Geological Society of America, Annual Meeting, 2017, vol. 49, no. 6, #25-9, Seattle, WA, USA.

Crane, K. T., and Klimczak, C.: Tectonic patterns of shortening landforms in Mercury’s northern smooth plains. Geological Society of America, Annual Meeting, 2017, vol. 49, no. 6, #25-8, Seattle, WA, USA.

Cronin, K., Walker, S.E., Mann, R., Chute, A.S., Long, M. and Bowser, S.. 2017. Relatively fast growth and moderate longevity for the Antarctic Scallop, *Adamussium colbecki*, living in the coldest waters on Earth. Geological Society of America Abstracts with Programs 49:doi: 10.1130/abs/2017AM-306175

Laura Fackrell– 2018 Development of Martian Regolith Simulants for Exploration of In Situ Resource Availability and Potential. 49th Lunar and Planetary Science Conference , Woodlands, TX.

Hutcheson, H., Milewski, A., Rasmussen, T., Faustini, J., Graves, G., Dowd, J., Webster, C., Maher, S., 2017. Water Resources Inventory and Assessment for Felsenthal National Wildlife Refuge , Geological Society of America Annual Meeting.

Hutcheson, H., Lord, C., Rasmussen, T., 2017. A Groundwater Risk Assessment of the USFS Southern Region.

Klimczak, C., Calliban, M. B., Crane, K. T., Kling, C. L., and Byrne P. K.: Fault Rock Evolution of large Thrust Systems on Mars. 49th Lunar and Planetary Science Conference, 2018, #1083, Houston, TX, USA.

Klimczak, C., Crane, K. T., Habermann, M.A., and Byrne P. K.: A statistical investigation into the spatial distribution of Mercury’s pyroclastic activity. *Geological Society of America, Annual Meeting*, 2017, vol. 49, no. 6, #25-8, Seattle, WA, USA.

Knapp, Abigail S., 2017. Bloom in the Drought: an Integrated Investigation into the Hydro Drivers of Harmful Algal Blooms. River Basin Center Microconference.

Knapp, Abigail S., 2018. Hydrologic Drivers of Harmful Algal Blooms in two Piedmont Reservoirs. Atlanta Geological Society, invited talk.

Knapp, Abigail S., Milewski, Adam M., and Rotz, Rachel R., 2017. Temporal Relationship between Drought-Precipitation Patterns and Freshwater Harmful Algal Blooms in Lake Allatoona, GA. Geological Society of America, Program with Abstracts.

LaPointe, C. and Walker, S.E. 2017. Growth and longevity of the scallop *Chesapeakea nefrens* (Calvert Cliffs, Maryland) during the Miocene Climatic Optimum and subsequent rapid cooling event. Geological Society of America Abstracts with Programs 49: doi: 10.1130/abs/2017AM-305148

Long, M.C., Mann, R., Rudders, D., Roman, S., Chute, T., Cronin, K., and Walker, S.E. 2018. Growth rate measurement in scallops: revisiting Merrill after 50 years on the library shelf. National Shellfisheries Association, Seattle, Washington.

David F. Richards IV, 2017 Rare Earth Distributions in the Critical Zone: Possible Roles of Pine Versus Hardwood Vegetative Covers. 36th Annual Technical Conference of the National Association of Black Geoscientists, Atlanta, GA

Rotz, R., and Milewski, A. Inland Freshwater Lens Occurrence and Longevity in Response to Recharge Rate in Dryland Environments Using a Physical Laboratory Model. 2017, Geological Society of America Annual Meeting.

Christopher Smith - “Effect of selected heavy metal elements on shallow-water benthic foraminiferal assemblages from Sapelo Island, Georgia and Little Duck Key, Florida: An investigation using the propagule method.” GSA National Meeting, Seattle (Goldstein)

External Funding

Geological Society of America Travel Grants

Kelly Cronin
Abigail Knapp
Cullen LaPointe
Holly Hutcheson
Rachel Rotz

Smithsonian Summer Research, Hawaii

Rachel Rotz

Geological Society of America Graduate Student Research Grant

Melanie Callihan
Abigail Knapp
Rachel Rotz

UGA Graduate School Graduate Student Research Fund

Melanie Callihan
Kelsey Crane

UGA Graduate School Travel Grant

Kelly Cronin
Kelsey Crane
Rachel Rotz

Sigma XI Grants-in-Aid of Research

Kelly Cronin

Planetary Geology Division Travel Award

Kelsey Crane

Association of Women Geoscientists Sand Student Research Presentation Travel Award 2017

Melanie Callihan

CUAHSI/National Water Center Summer Institute Fellow

Holly Hutcheson
Matt Thomas

NAMS Jones-O'Neill Award

Christopher Smith

Joseph A. Cushman Award for Student Travel

Christopher Smith

Joseph W. Berg Scholarship in Geophysics

Gustavo Larramendi



Of Note

Planetary Geology Division of Geological Society of America Student Representative
Kelsey Crane

Summer NASA DEVELOP Consultant
Melanie Callihan

GSA Student Advisory Council
Kelsey Crane

Future Faculty Fellow
Kelsey Crane

Internal Funding

Miriam Watts-Wheeler Research and Travel Scholarships
Fall 2017 • Spring 2018

Garett Brown
Melanie Callihan
Kelsey Crane
Kelly Cronin
Laura Fackrell
Matt Hess
Holly Hutcheson
William Jenkins
Abigail Knapp
Cullen LaPointe
Pedro Monarrez
Rachel Rotz
Chris Smith
Sierra Swenson

Matthew Thomas
Sarah Wright

Gilles and Bernadette Allard Geology Award

Garett Brown
Melanie Callihan
Kelsey Crane
Matt Hess
William Jenkins
Sierra Swenson

John Sanford Levy Award

Kelly Cronin

Schlumberger Faculty for the Future Fellowship Award

Kelsey Crane

Outstanding Teaching Assistant Award

Pedro Monarrez
Abigail Knapp

Outstanding PhD Student of the Year 2017-2018

Pedro Monarrez

Outstanding MS Students of the Year 2017-2018

Jake Lee
Abigail Knapp
Devon Verellen

Outstanding Young Alumni Award

Ny Riavo Gilbertine Voarintsoa

Distinguished Alumni Award

Robert A. Craddock



Faculty Accolades

Department Head

Paul Schroeder

Associate Department Head

Adam Milewski

Undergraduate Advisors

Doug Crowe

Rob Hawman

Graduate Coordinator

Sue Goldstein

Fund Raising and Alumni Engagement

Doug Crowe

Professor of the Year

Dr. Rob Hawman

Teacher of the Year

Dr. Rob Hawman

Faculty Awards/Presentations/ Research

Milewski, A., P.I. – Ground Validation of Remote Sensing-based Precipitation Products in Kuwait, Kuwait University 2018-2019

Milewski, A., P.I. – Hydrologic Inventory and Assessment of NWRs, National Fish and Wildlife Service (USFWS) 2017-2020

Milewski, A., P.I. – Impacts of Hydrologic Extremes on Natural Resources, National Parks Service (NPS) 2017-2019

Milewski, A., Co-P.I. – (PI – Liz Kramer; University of Georgia) - Capacity Building for Research and Training for Food System Sustainability and Security, University of Georgia 2017-2018

Dr. Adam Milewski was elected to the US International Association of Hydrogeologists' Board of Directors.

Dr. Adam Milewski is also Chair, Early Career Hydrogeologist Network, US Chapter of the International Association of Hydrogeologists

Dr. Valentine Nzengung received a research grant titled: *Development and Evaluation of Methods for the Immobilization of Metals and Non-Metals in Coal Combustion Residuals*

Grant Awarded by: *Duke Energy*

Staff Accolades

A Group of Extremely High Performing Individuals

Rachel Ashton
Ashley Arnold
Cindy Fouche
Julie Cox
Catherine Moore
Michael Lewis
Chris Fleisher
Gian Cella
Patrick Trent

Recognition of Geology Club

2017 – 2018 Officers

Lillian Kalla – Trip Planner

Gian Cella – Secretary

Jacob Bomser – Treasurer

Trezevant Rice – President

